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and 124, temperature and conductivity surveillance 200, and voltage surveillance 180 are examples of means for registering and measuring process data.

IN THE CLAIMS:

Please amend the claims as shown by ~~deletions~~ and insertions.

1. (Currently Amended) Method for treatment of accumulators having at least one cell comprising the steps of:

applying a varying direct current from a charging unit to at least one cell ~~in~~ of an accumulator in intermittent current supply periods having a length of between 0.01 and 0.5 seconds and a current level during said current supply periods amounting to between 80 and 1000 A that is~~, which are interrupted by current free pauses, the direct current being~~ sufficient to generate gas in the accumulator and strong enough for the at least one cell to reach a voltage of at least 2.5 V during the current supply periods;~~, wherein said treatment comprises a regeneration process, wherein said current supply periods have a length of between 0.01 and 0.5 seconds, a current level during said current supply periods amounting to between 80 and 1000 A,~~

interrupting the intermittent current supply periods with current free ~~said~~ pauses having a length of 1 to 20 seconds;

registering process data for at least one cell in the accumulator during the treatment process; and

controlling the treatment process with said process data.

2. (Currently Amended) Method according to claim 1, wherein at least one of a conductivity in an electrolyte in the cell~~, and/or~~ and a temperature in the electrolyte in the cell comprises said process data.

3. (Previously Presented) Method according to claim 1, wherein sensors for said process data are introduced down into the electrolyte in each cell where process data is to be registered.

4. (Previously Presented) Method according to claim 1, wherein what is controlled during the treatment process is a length of said current supply periods, which may be between 0.01 and 0.5 seconds, a length of said pauses, which may be between 1-20 seconds, and the current supply periods ~~preferably~~ being ~~considerably~~ shorter than the pauses.

5. (Cancelled)

6. (Previously Presented) Method according to claim 1, wherein said current level during said current supply periods amounts to at least 110 A and 1000 A at the most.

7. (Currently Amended) Method according to claim 1, wherein the ~~a~~ current level during said current supply periods is 150 A at the most.

8. (Previously Presented) Method according to claim 1, wherein the treatment process is performed in a number of cycles, each cycle comprising a regeneration part of 2-8 hours, and a charge part.

9. (Previously Presented) Method according to claim 1, wherein said registering of process data and said controlling, is continuously performed during the entire or substantially the entire treatment process.

10. (Previously Presented) Method according to claim 1, wherein said registering of process data is performed during a predetermined time period of the entire treatment period.

11. (Previously Presented) Method according to claim 1, wherein said registering of process data and controlling based on this process data, is individually performed for all or substantially all cells in the accumulator.

12. (Currently Amended) Method according to claim 1, wherein the total current ~~running to~~ supplying the accumulator during the current supply periods is registered by surveying of a mean value for said process data for a small number of current supply periods, optimal control, and thereby optimal

treatment, thereafter being ensured when the mean value of the succeeding current supply periods, remains ~~in the main~~ mainly constant.

13. (Previously Presented) Method according to claim 1, wherein general data, for each individual accumulator, is used for the controlling of the treatment process, which general data is chosen from the group consisting of name of the customer, date, accumulator manufacturer, type number for the accumulator, type values for the accumulator, year of manufacture, time of the first operational use of the accumulator, time between previously performed treatments, and type of device in which the accumulator is used.

14. (Currently Amended) Method according to claim 13, wherein older general data and process data too, for at least one of other accumulators ~~and/or for~~ and previous treatments of the ~~specific~~ accumulator, are used for the controlling of the treatment process.

15. (Currently Amended) Method according to claim 14, wherein access to said older general data and older process data is ensured by connection to a network having a common database for these data for different ~~devices~~ charging units for the treatment of accumulators.

16. (Currently Amended) Method according to claim 15, wherein said network also is arranged to be used for at least one of the surveillance of the treatment process ~~and/or for~~ and the upgrading of software for the treatment process.

17. (Currently Amended) Device for treatment of accumulators having at least one cell, which device comprises:

a transformer having a primary coil adapted to be connected to ~~the electricity supply network,~~ a power supply and a secondary coil in communication with the primary coil,

a rectifier connected to the secondary coil,

a positive cable clip and a negative cable clip~~,~~ in communication with the rectifier and adapted to be connected to an accumulator which is to be treated, ~~and~~

~~an automatic actuator connected to the primary coil~~ a contactor constructed and arranged for intermittent connecting and disconnecting of the electricity supply network with short current supply periods interrupted by current free pauses, wherein said device ~~comprises a device for a regeneration process, the device~~ being arranged to conduct said current supply periods ~~with~~ having a length of between 0.01 and 0.5 seconds, a current level during said current supply periods being arranged to amount to between 80 and 1000 A which is strong enough for a cell in the accumulator to be brought to a voltage of at least 2.5 V during the current supply periods, and to conduct said pauses with a length of 1-20 seconds, ~~and in that the device also comprises~~

means for registering and measuring of process data of at least ~~in~~ one cell of the accumulator, and

means for controlling the treatment process based on this process data.

18. (Currently Amended) Device according to claim 17, wherein sensors for registering and measuring a conductivity in an electrolyte in the cell, comprises at least one of said means for registering and measuring process data~~, and/or~~ and sensors for registering and measuring a temperature in the electrolyte in the cell.

19. (Previously Presented) Device according to claim 17, wherein said means for registering and measuring process data are arranged to individually register and measure process data in all or substantially all cells of the accumulator.

20. (Currently Amended) Device according to claim 17, wherein said means for controlling the treatment process comprises a control unit and means for ~~dynamically~~, during the treatment process, altering the length of said current

supply periods to between 0.01 and 0.5 seconds, a length of said pauses, which may be between 1-20 seconds, and the current supply periods ~~preferably~~ being ~~considerably~~ shorter than the pauses.

21. (Cancelled)

22. (Previously Presented) Device according to claim 17, wherein the current level during said current supply periods is at least 110 A.

23. (Previously Presented) Device according to claim 17, wherein the current level during said current supply periods is 150 A at the most.

24. (Previously Presented) Device according to claim 17, wherein said means for the registering and measuring data is chosen from the group consisting of name of the customer, date, accumulator manufacturer, type number for the accumulator, type values for the accumulator, year of manufacture, time of the first operational use of the accumulator, time between previously performed treatments, and type of device in which the accumulator is used.

25. (Currently Amended) Device according to claim 24, wherein said device comprises means for connecting it to a database via a network for use of older general data and process data for previous treatment processes, for <u>at least one of</u> other accumulators ~~and/or for~~ <u>and</u> previous treatments of the ~~specific~~ accumulator, in the controlling of the treatment process.

26. (Currently Amended) Device according to claim 25, wherein said network also is arranged to be used for <u>at least one of</u> the surveillance of the treatment process ~~and/or for~~ <u>and</u> the upgrading of software for the treatment process.

27. (Currently Amended) Method according to claim 1, wherein said <u>accumulator</u> ~~battery~~ is a lead acid battery.

28. (Previously Presented) Method according to claim 4, wherein the length of said current supply periods is from 0.1- 0.5 seconds and the length of said pauses is from 1-10 seconds.

29. (Previously Presented) Method according to claim 4, wherein the length of said current supply periods is from 0.15 to 0.5 seconds and the length of said pauses is from 1-5 seconds.

30. (Previously Presented) Method according to claim 4, wherein the length of said current supply periods is from 0.1 to 0.4 seconds and the length of said pauses is 1-5 seconds.

31. (Previously Presented) Method according to claim 6, wherein said current level during said current supply periods amounts to at least 200 A and 1000 A at the most.

32. (Previously Presented) Method according to claim 6, wherein said current level during said current supply periods amounts to at least 250 A and 1000 A at the most.

33. (Previously Presented) Method according to claim 7, wherein a current level during said current supply periods is 110 A at the most.

34. (Previously Presented) Method according to claim 8, wherein the treatment process is performed in 5 to 30 cycles, each cycle comprising a regeneration part of 2 to 6 hours and a charge part using a continuous current supply.

35. (Previously Presented) Method according to claim 34, wherein the charge part is conducted from 0.5 to 2 hours

36. (Previously Presented) Method according to claim 34, wherein the charge part is conducted for about 1 hour.

37. (Previously Presented) Method according to claim 34, wherein the treatment process is performed in 5 to 20 cycles.

38. (Previously Presented) Method according to claim 10, wherein said registering of process data is performed during start up of the treatment.

39. (Previously Presented) Method according to claim 13, wherein the general data is registered automatically at start up of the treatment process.

40. (Previously Presented) Device according to claim 18, wherein said registering and measuring is arranged to be performed by opening of the accumulator and applying said sensors.

41. (Previously Presented) Device according to claim 20, wherein said means for controlling the treatment process comprises a microcomputer.

42. (Previously Presented) Device according to claim 24, further comprising a means for registering and measuring data for each individual accumulator.

43. (New) Device according to claim 17, wherein said contactor is connected to said primary coil.

REMARKS

Consideration and allowance of the subject application are respectfully requested.

Claims 1-43 are pending in the application.

Attached herewith are replacement sheets for Figs. 1 and 2. As shown in the above amendments to the drawings, Fig. 1 has been amended to show the common database and Fig. 2 has been added to disclose all of the features recited in the